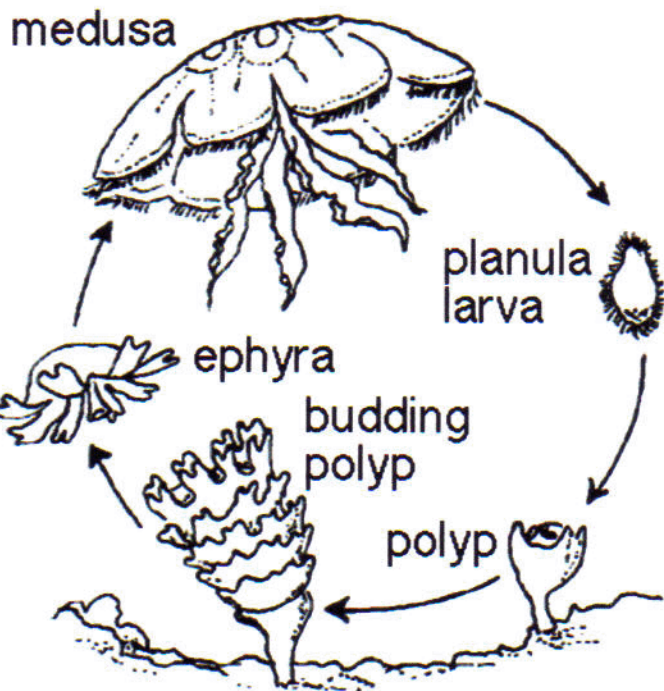


The life cycle of a typical jellyfish involves an alteration of generations in which the animal passes through two different body forms. The dominant and conspicuous medusa is the familiar form, while the smaller polyp form is restricted to the larval stage. Jellyfish are either male or female and

# Jellyfish Life Cycle



reproduce sexually. The reproductive organs (gonads) develop in the lining of the gut. During reproduction, the male releases sperm through its mouth into the water column. The sperm swims into the mouth of the female where fertilization occurs. Early embryonic development begins either inside the female or in brood pouches along the oral arms. Small swimming larvae (planula) leave the mouth or brood pouches and enter the water column. The larvae then seek a shaded surface and attach to the bottom, forming polyps. These polyps divide and bud into young jellyfish (ephyra). In a few weeks, an ephyra will grow into an adult medusa, thus completing the complex life cycle. Jellyfish normally live three to six months.

## Locomotion

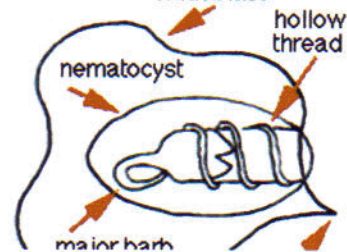
The adult jellyfish drifts in the water with limited control over its movements. It is, however, endowed with muscles that allow it to contract its bell, reducing the space under it, forcing water out through the opening. This pulsating rhythm allows for some regulation of vertical movement. Because jellyfish are sensitive to light, this vertical movement can be important. Some jellyfish, like the sea wasp, descend to deeper waters during the bright sun of the midday and surface during early morning, late afternoon and evenings. Despite this ability to move vertically, jellyfish depend upon ocean currents, tides and wind for horizontal movement.

## Food

Jellyfish may appear to have no apparent value, but they are, in fact, a very important part of the marine food web. Jellyfish are carnivorous, feeding mostly on a variety of zooplankton, comb jellies and occasionally other jellyfish. Larger species, however, are capable of capturing and devouring large crustaceans and other marine organisms. Jellyfish themselves are preyed upon by spadefish, sunfish, loggerhead turtles and other marine organisms. One species, the mushroom jelly, is even considered a delicacy by humans. Both fresh and pickled mushroom jellyfish are consumed in large quantities in China and Japan.

## Venom Apparatus

Nematocyst Before Discharge  
cnidoblast



Jellyfish are equipped with a specialized venom apparatus (cnidoblast) for defense and feeding. A capsule (nematocyst) inside the cnidoblast contains a trigger and a stinging structure. The stinging structure varies according to species, but generally consists of a hollow coiled thread with barbs lining its surface. Nematocysts are concentrated on the tentacles or oral arms. A single tentacle can have hundreds or